Activity: Water Resources Investigations

Subactivity: Cooperative Water Program

Subactivity	2005 Actual	2006 Enacted	2007 Fixed Cost & Related Changes [a/]	2007 Program Changes	2007 Budget Request	Change from 2006
Cooperative Water Program	62,337	62,833	+1,338	-2,000	62,171	-662
Total Requirements $000	**62,337**	**62,833**	**+1,338**	**-2,000**	**62,171**	**-662**
FTE [b/]	***789***	***780***	***0***	***-18***	***762***	***-18***

[a/] Fixed cost increases for this subactivity total $1,912, of which $1,338 will be budgeted and $574 will be absorbed.
[b/] The decrease of -18 FTE is matched by a decrease of -18 FTE in the reimbursable program, for a total decrease of -36 FTE.

Summary of FY 2007 Program Changes for Cooperative Water Program

Request Component	Amount	FTE
Program Changes		
• Interpretive studies	-2,000	-18
TOTAL	**-2,000**	**-18**

Justification of FY 2007 Program Changes

The 2007 request for the Cooperative Water (Coop) Program is $62,171,000 and 762 FTE, which is a program change of -$2,000,000 and -18 FTE.

Cooperative Interpretive Studies (-$2,000,000 and -18 FTE) — The interpretive studies portion of the Coop Program includes some turn-over each year as current projects end and new projects begin, according to the needs of the USGS and its non-Federal cooperators. The USGS will take this reduction from areas where projects are scheduled to end during FY 2006, so that projects do not have to be stopped before completion. Since the cooperators provide about two-thirds of the funding for the program, the content of projects is determined in consultation with those cooperators, and specific focus areas are often not known until workplans and joint funding agreements are established during the fiscal year. At the proposed funding level, the Coop Program will still be able to start $5–6 million in new projects in FY 2007.

Under the Department's Serving Communities—Advance Knowledge mission goal, this reduction will decrease the number of systematic analyses and investigations delivered to customers by -10. Since more than half the funds for the Coop Program are provided by the 1,400 State and local partner agencies, and since the program is highly customer driven, the reduction could also affect two end outcome measures under End Outcome Goal SEO.2:

- "Inform decisions through the application of science: Improved access to needed science information," and

- "Inform decisions through the application of science: Stakeholders reporting that information helped achieve goal."

Because of the cost-sharing requirements in the program's authorizing legislation, it is likely that State and local partners will withdraw funding of about $2 million, resulting in a real decrease to the program of $4 million. This loss of State and local partner funding will also result in an additional loss of -18 FTE, making the total FTE decrease for this program -36.

Program Performance Change Table

Total Performance Change		***-10 systematic analyses and investigations delivered to customers***			
	A	***B***	***C***	***D= B+C***	***E***
	Overall Performance Changes from 2006 to 2007				
Measure	**2006 Enacted Performance**	**2007 Base Performance Level**	**2007 Impact of Program Change on Performance**	**2007 Budget Request Performance**	**Out-year Impact of 2007 Program Change on Performance**
Systematic analyses and investigations delivered to customers	**138**	**136**	**-10**	**126**	**0**

Column B: The performance level expected to be achieved absent the program change (i.e., at the 2006 request level plus/minus funded fixed cost/related changes); this would reflect, for example, the impact of prior year funding changes, management efficiencies, absorption of fixed costs, and trend impacts.

Column E: The out-year impact is the change in performance level expected in 2008 and Beyond of ONLY the requested program budget change; it does <u>not</u> include the impact of receiving these funds again in a subsequent outyear.

Program Overview

The FY 2007 budget request for the Coop Program is $62,171,000.

As the primary Federal science agency for water-resource information, the USGS monitors the quantity and quality of water in the Nation's rivers and aquifers, assesses the sources and fate of contaminants in aquatic systems, develops tools to improve the application of hydrologic information, and ensures that its information and tools are available to all potential users. This broad, diverse mission cannot be accomplished effectively without the contributions of the Coop Program. For more than 100 years, the Coop Program has been a highly successful cost-sharing partnership between the USGS and water-resource agencies at the State, local, and tribal levels. Throughout its history, the program has made important contributions to meeting USGS mission requirements, developing meaningful partnerships, sharing Federal and non-Federal financial resources, and keeping the agency focused on everyday challenges facing water users across the country. The Coop Program has been highly successful because it:

- Combines Federal and non-Federal resources in addressing many of the Nation's most pressing water resource issues, resulting in great cost savings to both the Federal Government and the States,

- Conducts studies across the country in each of the 50 States, Puerto Rico, and U.S. Trust Territories, allowing the USGS to form a national picture of important water-resources issues and potential solutions,

- Uses standardized methods of data collection and analysis across the country, so that information and results of studies are comparable from one State to another, and so that knowledge gained from one study contributes significantly to understanding the hydrology in other parts of the country,

- Helps resolve inter-jurisdictional disputes by assessing conditions at State boundaries and by assuring all parties that the data and results of investigations are objective and are equally available to all parties, and

- Combines the utilization of USGS offices within the State with the much larger national infrastructure of the USGS. This infrastructure includes the National Water Quality Laboratory, the National Water Information System, the National Research Program (which provides new methods and consultation on difficult scientific issues), instrumentation testing facilities, and a national system of quality assurance.

The Coop Program is broken into three major components:

Data Collection Activities

(Estimates for FY 2005, $31.2 million; FY 2006, $31.4 million; FY 2007, $32.1 million)

Cooperatively funded hydrologic data collection activities are underway in every State, Guam, Puerto Rico, and the U.S. Virgin Islands. Over the past few years, the Coop Program has provided sole support or partial support for well over half of the sites where the USGS collects data on surface-water levels and flow, ground-water levels, and ground-water quality. In addition, the Coop Program supports collection of data on surface-water quality, which is becoming increasingly important to the States as they monitor total maximum daily loads (TMDLs), to comply with the requirements of the Clean Water Act.

All these data provide resource managers with the information they need to determine the suitability of water for various uses, identify trends in water quality, and evaluate the effects of various stresses on the Nation's ground water and surface water resources. Much of the data collected at USGS monitoring sites is provided free of charge on the Internet. This includes historical data, as well as real-time data, which are generally less than 4 hours old. The real-time data are used routinely by emergency management agencies, State and municipal agencies, businesses, irrigators, and recreational boaters and fishers.

In addition to providing information responsive to State or local needs, the Coop Program provides information that satisfies the needs of many Federal agencies. Some of these needs are:

- Forecasting floods,
- Managing surface-water supplies,
- Monitoring hydroelectric power production,
- Setting waste disposal limitations,
- Regulating industrial discharges,
- Designing highway structures,
- Measuring the downstream transport of pollutants or nutrients,
- Determining total maximum daily loads,
- Evaluating mine permits,
- Planning and evaluating land reclamation,
- Evaluating fish habitat,
- Quantifying Indian water rights, and
- Quantifying Federal reserved water rights.

Most of the USGS data collection stations serve multiple purposes and many are funded, wholly or in part, through joint-funding agreements. Normally, these stations, though funded by various organizations, are operated as part of an integrated network rather than as stand-alone entities. For this reason, cooperating organizations are billed on the basis of average station cost, rather than actual cost, which rarely can be precisely known. This procedure benefits these organizations and the USGS in at least two ways: administrative costs are reduced because financial transactions are simplified, and definitive cost information is available to all parties for planning purposes at the beginning of the fiscal year. This arrangement also assures that data collection in remote areas or areas which may be otherwise problematic (due to vandals, extreme flooding, lightning strikes) during a given period of time do not become so expensive that they must be dropped from the network.

Interpretive Studies

(Estimates for FY 2005, $24.9 million; FY 2006, $25.1 million; FY 2007, $23.7 million)

In addition to data collection activities, the Coop Program supports about 750 hydrologic studies each year. Water resource studies define, characterize, and evaluate the extent, quality, and availability of water resources. The results of these investigations are published and provided to State agencies, which use them as the basis for managing the water resources for which they are responsible. Also, these investigations provide information that can be synthesized and applied to a variety of hydrogeologic and climatic settings across the Nation, greatly expanding the usefulness and transferability of USGS study results nationwide.

Technical Support

(Estimates for FY 2005, $6.2 million; FY 2006, $6.3 million; FY 2007, $6.4 million)

The USGS has a long tradition of providing national and regional technical support for its geographically distributed water resources studies. This support provides quality control to assure the technical excellence of water resources field programs and provides a structured way of transferring new technology to USGS investigative and data activities that are primarily conducted in Water Science Centers in each State. Technical support also includes a formal way of establishing priorities for water resources research by the USGS and provides a mechanism to make water resources information available to other agencies, the scientific community, and the public.

In July 2005, Congress modified, clarified, and finalized report language that has a significant impact on the Coop Program. Accordingly the Program's 5-Year Plan will be updated and reviewed to conform to the new outline, format, and internal/external team approach.

FY 2007 Program Performance Estimates

The planned program activities listed below demonstrate the utility of USGS products that are counted under the "systematic analyses and investigations delivered to customers" output measure. The Program also contributes to the intermediate outcome measure "content and expanse of knowledge base" through its support for the national streamgaging network; however, accomplishments associated with the streamgaging network are shown in the write-up for the NSIP.

Interpretive Studies

High-Priority Issues for Coop Program Involvement — In consultation with local and regional managers, external cooperators, and the interagency Advisory Committee on Water Information, the USGS has identified seven water-related issues for FY 2006 and 2007 that closely align with USGS mission goals that most require USGS involvement at State and local levels. Issues emphasized include: hydrologic hazards; water quality; hydrologic data networks; water availability and use; wetlands, lakes, reservoirs, and estuaries; water resources issues in the coastal zone; and environmental effects on human health. Studies in these areas will be conducted in FY 2007; specific study locations and topics will be determined in consultation with the program's 1,400 State, local, municipal, and tribal cooperators.

National Synthesis — One of the major strengths of Coop Program is its ability to provide data and assessments on varied topics from across the country, which, when synthesized, can be useful in addressing broad, national mission goals. As recommended by the External Task Force that reviewed the Coop Program, the USGS plans to expand these efforts in FY 2007 by pre-planning selected synthesis products. The memorandum describes four topics for possible future national synthesis over the next few years. USGS State Water Science Centers are encouraged to explore the needs of cooperating agencies for addressing these issues and, to the extent that is mutually agreeable, follow the guidance that will be provided by the contact for each synthesis topic. Including this guidance in project planning will help enhance the capabilities of each State Water Science Center, promote the use of valid, standard approaches, and enhance future synthesis products. The topics for National Synthesis are:

- **Recharge to Ground-Water Systems —** Recharge is one of the most important components of water budgets, yet estimating recharge accurately remains problematic, requiring a variety of techniques in different parts of the country and at different scales. Enhancing our ability to evaluate different techniques in various settings would enable us to provide better guidance on matching the appropriate technique to a specific need for recharge information.

- **Fluvial Sediment —** The EPA has declared fluvial sediment the most prevalent impairment to the Nation's surface waters; as such, sediment is playing a major role in river restoration efforts and TMDL evaluations. The USGS Offices of Water Quality and Surface Water and the National Research Program continue their collaboration to identify methods, tools, and capabilities for sediment data collection and analysis that the USGS can bring to bear in support of stream restoration and TMDL projects. A variety of new technologies are creating opportunities for producing more accurate and more efficient estimates of sediment flux.

- **Changes in Flood Frequency —** Many urban areas are concerned about changes in flood frequencies resulting from land use changes, and the FEMA recently issued revised regulations for its flood insurance rate maps. For example, under the new regulations, communities may now include a delineation of the floodplain based on anticipated future conditions.

- **Synthesis of Water Quality Information —** As the NAWQA program begins a redesign of its surface-water quality data network, there are opportunities to combine water-quality data from networks established in the Coop Program with NAWQA data to develop a more integrated approach to water-quality monitoring nationwide within the USGS. Ground-water data could also be included in such a comprehensive nationwide

approach. The information from integrated monitoring networks could be used to more fully answer important questions about the Nation's water quality and trends.

- **Determination of Water Needs for Ecological Functions —** Several valuable collaborations of hydrologists and biologists have arisen in the Coop Program in recent years to help determine water needs to support healthy ecosystems. These studies pertain to both ground water and surface water, and sometimes to interconnected systems of both. Products of this work include data, research results, and tools such as models that can provide a scientific basis for critical decisions on allocation or reallocation of precious water resources. As this issue takes on greater importance nationally, the USGS will seek opportunities to synthesize geographically varied examples into a national summary.

FY 2006 Planned Program Performance

The planned program activities listed below demonstrate the utility of USGS products that are counted under the "systematic analyses and investigations delivered to customers" output measure. The Program also contributes to the intermediate outcome measure "content and expanse of knowledge base" through its support for the national streamgaging network; however, accomplishments associated with the streamgaging network are shown in the write-up for the NSIP.

Assessing Firm Yield for Drinking-Water Supply Reservoirs in Massachusetts — Three reports will comprise the results from 2005: one was published in 2005 and two will be published in 2006. Proposed work in 2007 includes additional modifications to the model that will incorporate uncertainty into estimates of firm yield, improve the calculation of the ground-water contribution to reservoir storage, and further validate the model results with observational data. The effects of drought, environmental flow requirements, and demand management on firm yield will also be evaluated. A user manual, release of the final compiled model, and an additional report are planned for 2009.

National Stakeholder Roundtable

The Second National Stakeholder Roundtable for the USGS Cooperative Water Program will be held in February 2006 in Austin, TX, convened by the Interstate Council on Water Policy (ICWP) in cooperation with other organizations.

Since the first Roundtable in March 2005, a coalition of organizations has continued discussions regarding the future of the program (for examples, see *http://www.icwp.org*).

Like the first meeting, this will be an opportunity for cooperators, data users, and others to hear the latest about the status of the program and to air their concerns and suggestions regarding the program to an audience that includes senior USGS leaders, as well as many other cooperators. At the meeting, the External Task Force to review the program will present their final report, along with the response from the USGS to the Task Force suggestions.

Barton Springs Ground-Water Characterization Project, Texas — The USGS investigation in this area is improving the resolution of water quality data for the Barton Springs portion of the Edwards Aquifer, and the USGS will interpret the data to expand the general understanding of the aquifer's response to natural and human-caused phenomena. Using stream discharge, spring discharge, and chemical data obtained in 2005 and 2006, USGS scientists will estimate quantitative balances of water, ions, and contaminants in the aquifer. The balances will be used to evaluate to what extent the water balance has changed since 1986 as a result of urbanization, where loading of different contaminants is occurring, and to what extent contaminants are being stored or attenuated within the aquifer. In 2006 the USGS will produce a Scientific Investigations Report, submit 1–3 articles for publication in journals such as the

Journal of Contaminant Hydrology, and present results of the project at several additional scientific and government meetings, including the Geological Society of America.

Coastal Georgia Sound Science Initiative — During FY 2006 final reports describing development of solute transport models for the Savannah-Hilton Head Island and Brunswick areas will be completed, together with a summary report describing results of model simulations of future water-management scenarios.

MTBE Contamination Involves Deep Public-Supply Wells in Southeast New Hampshire — Study results appeared in the January 2005 issue of Environmental Science and Technology. A follow-up study, underway in FY 2006, is assessing the occurrence of MTBE in 700 public and private wells statewide. Results of these studies are being used in a statewide program to assess risk of MTBE contamination in public wells and by the State Attorney General to support claims against 22 oil companies for damages to public water supplies in the State.

Evaluation of Streamflow Requirements for habitat Protection in Southern New England — In 2004, the USGS published a Water-Resources Investigations Report that evaluated streamflow requirements for habitat protection and assessed fish community composition near selected index streamgaging stations. A similar report will be published in FY 2006 that will use streamflow records from additional index stations to classify streams with different basin characteristics and in different regions of southern New England.

Ground-Water Ambient Monitoring and Assessment in California — During FY 2005 sampling was completed in 7 study units, and a report and fact sheet were published. Plans for FY 2006 include continued sampling, and publishing one or two additional reports.

Implementing a System for "Nowcasting" Bacteria Levels and Beach Advisories, Lake Erie, Ohio — Beach advisories and closings are made on the basis of measured concentrations of *Escherichia coli (E. coli)*. Beach managers, EPA, and the research community have long recognized that reliance on *E. coli* is often inadequate because concentrations of *E. coli* may change drastically between the time of sampling and reporting of results (18–24 hours). Statistical models can provide beach managers with a tool for more accurate and timely assessments of beach-water quality than the currently used methods. A statistical model typically uses easily and quickly measured surrogates, such as wave height and rainfall, to estimate *E. coli* concentrations or the probability of exceeding target concentrations and thus predict recreational water quality. Statistical models are being refined or developed for five Lake Erie beaches in Ohio by the USGS. In cooperation with the Cuyahoga County Board of Health, Cleveland Metroparks, and the Ohio Lake Erie Office, the USGS is testing the model from Huntington Beach to determine whether it is suitable as the basis for an Internet-based "nowcast" system to inform beachgoers of the current water quality on the beaches. Data collected to test and run the Huntington model include measurements of rainfall, turbidity, and wave heights, as well as measurements of *E. coli* concentrations in water. Final results will be presented in a journal article describing the development of models at Huntington and other beaches, and results of model verification at Huntington.

FY 2005 Program Performance Accomplishments

In FY 2005, more than 1,400 State, regional, local, and municipal agencies, and Native American Tribes participated in the Coop Program. These cooperators matched the $62,337,000 appropriated to the USGS, and contributed an additional $83,937,000, for total program funding of $208,611,000. The program accomplishments listed below demonstrate the

utility of USGS products that are counted under the "systematic analyses and investigations delivered to customers" output measure. The Program also contributes to the intermediate outcome measure "content and expanse of knowledge base" through its support for the national streamgaging network; however, accomplishments associated with the streamgaging network are shown in the write-up for the NSIP.

Assessing Firm Yield for Drinking-water Supply Reservoirs in Massachusetts — Growing demands on drinking-water supplies in Massachusetts have increased the likelihood that withdrawals could deplete available storage capacity in surface-water reservoirs, resulting in supply shortfalls. As demands increase, water suppliers and regulators have recognized the need to establish upper limits on the amount of water a reservoir can consistently supply, particularly if the reservoir were to experience a period of severe drought. This upper limit on reservoir yield is the "firm yield." To evaluate and manage current and future demands on drinking-water supply reservoirs in Massachusetts, the USGS, in cooperation with the Massachusetts Department of Environmental Protection and local drinking-water suppliers, has developed a model using a relational database and a convenient user interface that estimates this firm yield. In 2005, firm yields were calculated for 47 streamflow-dominated reservoirs representing 15 Massachusetts drinking-water supplies, and a full evaluation of the methodology to estimate firm yield was completed. Detailed firm-yield estimates were completed for reservoirs in the Ipswich River Basin. Also in 2005, the applicability of the model was expanded to include drinking-water-supply reservoirs that receive water from both surface-water and ground-water sources. Inclusion of the ground-water contribution to reservoir storage resulted in increased firm yields for all reservoirs whose shorelines were in contact with aquifer sediments. Three reports will comprise the results from 2005: one was published in 2005 and two will be published in 2006.

Coastal Georgia Sound Science Initiative — Rapid population growth, increased tourism, and sustained industrial activity have adversely affected coastal Georgia's water resources and limited the available water supply. Pumpage from the productive Upper Floridan limestone aquifer has resulted in several problems including substantial water-level declines, saltwater intrusion, and decreased ground-water inflow to springs, freshwater ponds, marshes, and wetlands, which could impact the balance of freshwater and saltwater in tidal rivers and estuaries. In FY 2005, the USGS completed calibration of ground-water flow and solute transport models, which were used to evaluate future water management scenarios for the coastal region of Georgia and South Carolina. Seven Scientific Investigations Reports describing results of offshore drilling, deep onshore drilling, ground-water flow model results, stream-aquifer interaction, impacts of a major industrial shutdown on ground-water conditions, hydraulic properties of the Floridan aquifer system, and the water-resources potential of dug seepage ponds were completed and distributed to customers. The Georgia Environmental Protection Division is using the results to formulate the final strategy for the coastal region, which is scheduled for January 2006.

Barton Springs Ground-water Characterization Project, Texas — The Barton Springs segment of the Edwards Aquifer, a karst ground-water system located in southern Travis and northern Hays counties, provides vital water resources to the

USGS Scientist Recognized in Texas

Dr. Barbara Mahler, USGS Research Hydrologist in Austin, TX, was selected by the Barton Springs/Edwards Aquifer Conservation District as the recipient of their 2005 Research Conservation Award. Dr. Mahler serves as project chief for the Barton Springs Ground-water Characterization Project. This award honors efforts that lead to improved understanding or advanced practices in areas such as groundwater, hydrogeology, water treatment, alternative water supplies, well drilling, or structural and non-structural best management practices to reduce erosion and non-point source pollution.

people of Austin and to endemic species, including the Barton Springs salamander (a federally-listed endangered species). Austin is one of the most rapidly urbanizing cities in the United States, and the impact in the Barton Springs watershed is beginning to be seen, particularly following rain events. Baseline water quality and flow monitoring conducted during 2005 completed a full hydrologic year cycle of water-quality sampling. In addition, the USGS intensively sampled water quality over two storm events when the system was reacting rapidly to infiltrating surface water. Initial interpretation of results suggests that transport of manmade contaminants through the aquifer in response to storms is rapid, with peak concentrations arriving at the spring in less than 2 days. A potentially important new result is that the pesticide fipronil, which was recently placed on the market and whose use is increasing, has now been detected at low concentrations in the springs. Another is that detections of diazinon, sale of which was restricted December 2004, have greatly decreased. Statistical analysis of data indicates that there are four principal sources of water to the aquifer, the proportion of which changes as a function of climatic conditions. Preliminary results were presented to the Texas Department of Agriculture.

Characterization of Natural Flow Regimes for Rivers in Southern New England — Widespread development and associated increases in water withdrawals, streamflow regulation, runoff from impervious surfaces, and wastewater return flows have altered streamflows in many river systems in Massachusetts. Current strategies for managing or restoring ecological integrity in river systems require maintenance of streamflows within a natural pattern of flow variability. Streamflow records from active and discontinued stations on streams with minimal flow alterations are being used to characterize the natural flow regimes of streams in southern New England. In 2004, the USGS published a Water-Resources Investigations Report that evaluated streamflow requirements for habitat protection for riffle habitats and assessed fish community composition near selected index streamgaging stations. Streamflow requirements were compared to streamflow statistics describing the natural flow regime and streamflow variability for the index stations. Work completed in FY 2005 will support publication of a similar report in FY 2006 that will use streamflow records from additional index stations to classify streams with different basin characteristics and in different regions of southern New England.

Methyl-tert-Butyl Ether (MTBE) Contamination of Ground Water in New Hampshire — In New Hampshire, nearly half of the population is served by drinking water from public and private bedrock wells. In 2003, the USGS conducted a study of the occurrence of MTBE in public and private water-supply wells in Rockingham County, with the New Hampshire Department of Environmental Services. Study results appeared in the January 2005 issue of *Environmental Science and Technology.* A follow-up study, underway in FY 2006, is assessing the occurrence of MTBE in 700 public and private wells statewide. Preliminary results indicate that contamination rates are generally lower in the rest of the State than in Rockingham County, where RFG use in mandated. However, other non-RFG counties may have increased levels of MTBE contamination due their proximity to locations where RFG is sold. Results of these studies are being used in a statewide program to assess risk of MTBE contamination in public wells and by the State Attorney General to support claims against 22 oil companies for damages to public water supplies in the State.

Ground-Water Ambient Monitoring and Assessment (GAMA) in California — In response to a need for consistent statewide data on the quality of ground-water in California, the USGS has teamed up with State and Regional Water Boards, Department of Water Resources, Department of Health Services, Lawrence Livermore National Laboratory, regional water management entities, and county and local water agencies to improve statewide ground-water monitoring and facilitate the availability of information about groundwater quality to the public. A

key aspect of GAMA is interagency collaboration and cooperation with local water agencies and well owners. The data collected during the study include analyses for chemical constituents that are not normally available; these data will be especially useful for providing an early indication of potential water-quality problems. The data also will be used to identify the natural and human factors affecting ground-water quality. An understanding of these factors is important for the long term management and protection of California's ground-water resources. To organize the assessment, the 476 ground-water basins in the State were ranked by priority, and 116 high-priority basins were selected for monitoring, and were combined into 35 study units. These units represent more than 75 percent of the public-supply wells in California. In each unit, 60–120 public-supply wells will be sampled. Three types of water-quality assessments will be conducted for each study unit: (1) Status: the assessment of current ground-water quality; (2) Trends: the detection of changes in water quality; and (3) Understanding: the assessment of natural and human factors that affect ground-water quality. During FY 2005 sampling was completed in 7 study units, and a report (*http://water.usgs.gov/pubs/wri/wri034166/*) and a fact sheet (*http://water.usgs.gov/pubs/fs/2004/3088/*) were published.

Performance Overview

The Coop Program addresses the Department's Serving Communities strategic goal of advancing knowledge through scientific leadership and informing decisions through the application of science. There are no performance measures that can be tied exclusively to the Coop Program; however, in conjunction with the NSIP, Hydrologic Networks and Analysis, and an array of reimbursable projects funded by 800 partner agencies, the Coop Program contributes to all the measures listed below. In addition, the Coop Program contributes to the output measures for "number of real-time streamgages reporting in NWISWeb," "number of ground-water sites reporting in NWISWeb," and "number of water-quality sites reporting in NWISWeb." Newly established (FY 2005) PART measures also rely on the Coop Program, including those listed in the table below.

Measure	2005 Plan	2005 Actual	Change from 2005 Plan	2006 Enacted	2006 Change from 2005 Actual	2007 Request	2007 Change from 2006
SIM.2.1.01 content and expanse of knowledge base (% of proposed streamflow sites currently in operation that meet one or more Federal needs) **(PART) (SP)**	63%	61%	-2%	62%	+1%	62%	0%
# real-time streamgages reporting in NWISWeb	5,187	6,246	+1,059	6,165	-81	6,195	+30
% of WRD streamflow stations with 30 or more years of record **(PART)**	61%	58%	-3%	62%	+4%	63%	+1%
% of U.S. with ground water quality status and trends information to support resource management decisions **(PART)**	39%	39%	0%	45%	+6%	51%	+6%
% of U.S. with ground water availability status and trends information to support resource management decisions **(PART)**	7%	7%	0	8%	+1%	7%	-1%

Measure	2005 Plan	2005 Actual	Change from 2005 Plan	2006 Enacted	2006 Change from 2005 Actual	2007 Request	2007 Change from 2006
% of States with Web-based streamflow statistics tools to support water management decisions **(PART)**	11%	10% b/	-1%	18%	+8%	20%	+2%

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